Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Integrated Geometry Final Exam REVIEW *2012-2013***

**PART 1: VOCABULARY.**  Match the vocabulary term to the best description. *(1 pt. each)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1. | Complementary Angles |  |  |  |
|  |
|  | 2. | Segment |  |  |  |
|  |
|  | 3. | Vertical Angles |  |  |  |
|  |
|  | 4. | Adjacent Angles |  |  |  |
|  | 5. | Midpoint |  |  |  |

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| --- | --- | --- | --- |
|  | 6. | Angle Bisector |  |
|  | 7. | Angle |  |
|  | 8. | Obtuse angle |  |
|  | 9. | Acute angle |  |
|  |  |  |  |
|  | 10. | Straight angle |  |
|  | 11. | Right angle |  |

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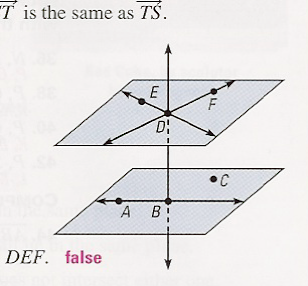
|  |  |  |  |
| --- | --- | --- | --- |
|  | 12. | Ray |  |
|  |  |  |  |
|  | 13. | Collinear |  |
|  |  |  |  |
|  | 14. | Line |  |
|  |  |  |  |
|  | 15. | Coplanar |  |
|  |  |  |  |
|  | 16. | Initial Point |  |
|  |  |  |  |
|  | 17. | Intersection |  |
|  |  |  |  |

**PART 2: PICTURE MATCH.**  Match the picture to the **best** vocabulary term. *(1 pt. each)*

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| --- | --- | --- | --- | --- | --- |
|  | 18. |  |  |  |  |
|  | 19. |  |  |  |  |
|  | 20. |  |  |  |  |
|  | 21. |  |  |  |  |
|  | 22. |  |  |  |  |

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| \_\_\_\_\_\_\_\_\_\_ 23. | http://www.mathworksheetsgo.com/sheets/algebra/linear-equation/slope/images/picture-of-linear-equation-graph.png |  |  |  |
| \_\_\_\_\_\_\_\_\_\_ 24. | http://www.ck12.org/flx/render/perma/resource/default/image/user%3Ack12editor/2d3f1805ccdc9701f2f1d487967f87be.png |  |  |  |

**Part 3: TRUE OR FALSE.** Use the picture at right to decide whether the statement is *true* or *false*.



**Part 3 (continued): TRUE OR FALSE.** Use the picture at right to decide whether the statement is *true* or *false*.

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|  | 30. | and  are VERTICAL angles. |  | |  |  |  |
|  | 31. | A angle is COMPLEMENTARY to angle. | | |  |  |  |
|  | 32. | A segment has 4 endpoints. | | |  |  |  |
|  | 33. | An acute angle measures between  and | | |  |  |  |
|  | 34. | and  are SUPPLEMENTARY angles. | |  |  |  |  |

**MULTIPLE CHOICE.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 42. | Estimate the measure  of : | | | | | | | | | | | | | | |
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| 44. | A computer screen shows two points at the coordinates: P1 (11,67) and P2 (86,14). What are the **coordinates of the midpoint** between the two points? | | | | | | | | | | | | | | |
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| 45. | What is the **distance** between the two points from #44? Round to the nearest tenth. | | | | | | | | | | | | | | |
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| **Multiple Choice – Calculating Area**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 19. | Calculate the Area of the **Trapezoid**. | | | | | | | | |  |  | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 19. | Find the Area of the **Circle**. | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 19. | The inside rail of a running track consists of a rectangle with a semi-circle at each end as shown in the figure below. Find the ***approximate*** area surrounded by the track rail. | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  | | | | | | | | | | | | | | | | | |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 19. | Find the Area of the Shaded Region, if each Circle has a radius of 7 cm. | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 21. | The length of a rectangle is 7.8 ft. The area of the rectangle is 48 ft2. Which is the closest approximation to the width of the rectangle? | | | | | | | | |  | | | | | | | | | |  |  |  |  |  |  |  |  |  | |  | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 29. | | What is the Area of the shaded region? | | | | | | | | | | | | | | |
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| **Multiple Choice – Calculating Surface Area and Volume** | | | | | | | | |
| 17. | What is the volume of this container to the *nearest tenth* of a cubic inch? | | | | | | | |
|  | | | | | | | | |
|  |  |  |  |  |  |  |  |  |
| 18. | Calculate the **volume** of the cylinder with a **diameter** of 12 m  4 m  and a **height** of 4 m. | | | | | | | |
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| 22. | Margaret is wrapping a box. The box is a rectangular prism 18 inches long, 12 inches wide, and 9 inches high. What is the **surface area** of the box? | | | | | | | |
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| 23. | A cylinder has a volume of approximately 188.4 cubic inches and a radius of 4 inches. What is its height? | | | | | | | |
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| 25. | A sphere has a radius of 6 inches. What is the closest approximation of the **volume** of the sphere? | | | | | | | |
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| 27. | What is the approximate **surface area** of the figure?  *l = 5* | | | | | | | |
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| 28. | What is the surface area of a **soccer ball** whose radius is 3 inches? Round to the nearest tenth. | | | | | | | |
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**OPEN-ENDED.** Answer each of the questions and place your answer in the space provided.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 48. a) Solve for y.  b) Find LM  c) Find MN  **LN = 163 units** | | | | 49. | |  | | --- | | = \_\_\_\_\_\_ | | = \_\_\_\_\_\_ | | = \_\_\_\_\_\_ | |
| y = \_\_\_\_\_\_\_\_ | LM = \_\_\_\_\_\_\_\_ | | MN = \_\_\_\_\_\_\_\_ |  | |
| 50.  bisects ∠ABD.  Find x and m∠ABD. | | | | CartesianCoordinatePlane51. Graph the following equation on the coordinate plane. | |
| x = \_\_\_\_\_\_\_\_ | | m∠ABD = \_\_\_\_\_\_\_\_ | |  | |

**Classify the Triangles.**  Classify the triangles by their angles and sides.

Use the word bank to the right. *(2 points each)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 12. |  | 13. |  | 14. |  |
|  | Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Triangle Sum and Exterior Angle Theorem.** Show your work. Write answers in the spaces provided. *(1pt ea.)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 15. |  |  | 16. |  | *(2 pts.)* |
|  |  |
|  |  |
|  |  |

**Is it a Triangle?** Determine if each set of numbers would make a triangle. Circle YES or NO. *(1 point each).*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 19. | 12.5, 13, 24.5 | YES |  | 20. | 4, 28, 32 | YES |
| NO | NO |

**Pythagorean Theorem.** Find the missing side of each Right Triangle. *(3 points each).*

**Pythagorean Theorem: **

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 21. |  | Missing side:  ------------------ |  | 22. |  | Missing side:  ------------------ |
|  |  |  |  |  |  |  |